

# Mineral Industry Surveys

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## COPPER IN NOVEMBER 1999

Mine, smelter, and refinery production continued their downward trends in November, falling by 2%, 4%, and 5%, respectively. Consumption of refined copper in November fell by 4% reflecting the shutdown of BHP Copper's wire rod mill in San Manuel, AZ. Consumption of refined copper for the first 10 months of 1999, however, was up by 3% compared to the same period in 1998.

According to preliminary data released by the International Copper Study Group (2000), world mine and refinery production during the first 10 months of 1999 were up by 3.9% and 2.1%, respectively, compared to the same period in 1998. Electrowon production, which rose 16.4%, accounted for most of the growth in both mine and refinery production. Secondary refined production declined by 95,000 tons, or 5.5%, over the same time period. World refined copper consumption for the first 10 months of 1999 rose by 3.6 % compared with that of the first 10 months of 1998. World reported inventories of refined copper totaling 1.44

million tons at the end of November were down by about 90,000 tons from their peak level in May, perhaps signaling an end to the long period of growing copper surplus. Inventories have risen almost steadily since their yearend 1996 level of about 600,000 tons.

### Price Update

Copper prices continued to strengthen in December and January. The Platt's Metals Week U.S. producer cathode price averaged \$0.854 per pound in November and \$0.894 per pound for the third week in January. The average 1999 producer price was \$0.759 per pound.

### Reference Cited

International Copper Study Group, 2000: ICSG press release, February 10, 1 p.

TABLE 1  
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1/

(Metric tons, unless noted)

	Source table 2/	1998	1999		
			October	November	January - November
Production:					
Primary:					
Mine, recoverable	(2)	1,860,000	119,000 r/	117,000	1,470,000
Smelter 3/	(3)	1,490,000	70,900	67,300	1,010,000
Refinery:					
Electrolytic:					
Domestic	(4)	1,290,000	88,400 r/	85,100	1,020,000
Foreign	(4)	238,000	15,800 r/	13,500	189,000
Electrowon	(4)	609,000	46,800	47,000	538,000
Total	(4)	2,140,000	151,000	146,000	1,750,000
Secondary recoverable copper:					
Refineries	(5)	349,000	21,000	17,700	224,000
Ingot makers 4/	(5)	130,000	10,800	10,800	119,000
Brass and wire-rod mills	(5)	811,000	70,400 r/	69,300	764,000
Foundries, etc. 4/	(5)	51,300	4,280	4,280	47,100
Consumption:					
Apparent	(8)	3,020,000	279,000	NA	NA
Refined (reported)	(7)	2,890,000	259,000 r/	248,000	2,770,000
Purchased copper-base scrap	(9)	1,720,000	152,000 r/	147,000	1,660,000
Stocks at end of period:					
Total refined	(11)	532,000	571,000 r/	563,000	XX
Blister, etc.	(11)	160,000	142,000 r/	140,000	XX
Prices:					
U.S. producer cathode (cents per pound) 5/	(12)	78.641	83.364	83.162	75.050
Imports: 6/					
Ores and concentrates 7/	(14)	217,000	--	NA	NA
Refined	(14)	683,000	81,000	NA	NA
Exports: 6/					
Ores and concentrates 7/	(15)	36,500	21,000	NA	NA
Refined	(15)	86,200	1,400	NA	NA

r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Numbers in parentheses refer to the detailed tables where these data are located.

3/ From domestic and foreign ores.

4/ Monthly data and 1999 cumulative data estimated based on 1998 monthly average.

5/ Source: Platt's Metals Week.

6/ Source: Bureau of the Census.

7/ Copper content.

TABLE 2  
MINE PRODUCTION OF RECOVERABLE COPPER  
IN THE UNITED STATES 1/

(Metric tons)

Period	State		Total
	Arizona	Others 2/	
1998:			
November	97,500	57,600	155,000
December	99,900	56,700	157,000
January - November	1,090,000 r/	614,000 r/	1,710,000
Year	1,190,000	669,000	1,860,000
1999:			
January	99,400	55,500	155,000
February	89,700	48,300	138,000
March	102,000	56,800	159,000
April	95,100	49,300	144,000
May	95,500	47,800	143,000
June	87,300	45,300	133,000
July	86,400	41,400	128,000
August	77,400 r/	41,100	118,000
September	78,400 r/	40,600	119,000 r/
October	80,400 r/	39,900 r/	120,000 r/
November	75,800	40,300	116,000
January - November	968,000	506,000	1,470,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes production from Alaska, Idaho, Missouri, Montana, Nevada, New Mexico, Tennessee, and Utah.

TABLE 3  
COPPER PRODUCED AT SMELTERS IN THE  
UNITED STATES, BY SOURCE 1/ 2/

(Metric tons, copper content)

Period	Domestic and foreign ores	Scrap	Total
1998:			
November	134,000	19,000	153,000
December	120,000	18,000	138,000
January - November r/	1,370,000	214,000	1,580,000
Year	1,490,000	232,000	1,720,000
1999:			
January	106,000	18,300	125,000
February	113,000	16,100	129,000
March	116,000	14,700	131,000
April	124,000	15,600	140,000
May	85,400	14,000	99,400
June	77,000	18,600	95,700
July	84,100	18,100	102,000
August	90,600	18,300	109,000
September	71,500	18,400	89,900
October	70,900	18,400	89,300
November	67,300	18,500	85,800
January - November	1,010,000	189,000	1,200,000

r/ Revised.

1/ Includes blister, anode and black copper from primary or secondary sources.

2/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 4  
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1/

(Metric tons)

Period	Primary materials				Scrap			Total refined
	Electrolytically refined 2/		Electrowon	Total	Electro-lytically refined 2/	Fire refined	Total	
	Domestic 3/	Foreign						
1998:								
November	106,000	24,400	51,400	182,000	14,700	9,710	24,400	207,000
December	115,000	22,300	52,500	190,000	17,000	10,400	27,500	217,000
January - November r/	1,180,000	216,000	556,000	1,950,000	185,000	137,000	322,000	2,270,000
Year	1,290,000	238,000	609,000	2,140,000	202,000	147,000	349,000	2,490,000
1999:								
January	85,400	26,700	52,100	164,000	12,500	8,310	20,800	185,000
February	84,200	24,200	47,300	156,000	12,400	10,200	22,600	178,000
March	117,000	25,600	52,400	195,000	14,700	10,000	24,800	220,000
April	111,000	19,100	49,200	179,000	12,100	6,630	18,700	198,000
May	106,000	12,300	51,000	169,000	11,300	5,960	17,200	186,000
June	95,500	12,100	48,900	157,000	12,500	6,100	18,600	175,000
July	77,300	15,100	48,600	141,000	13,500	8,740	22,300	163,000
August	83,200	11,900	46,700	142,000	13,500	5,770	19,300	161,000
September	90,800	12,700	48,300	152,000	13,400	7,880	21,300	173,000
October	88,400 r/	15,800 r/	46,800	151,000	14,100	6,970	21,000	172,000
November	85,100	13,500	47,000	146,000	13,800	3,900	17,700	163,000
January - November	1,020,000	189,000	538,000	1,750,000	144,000	80,500	224,000	1,980,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Based on source of material at smelter level.

3/ Includes fire-refined copper.

TABLE 5  
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, copper content)

Period	Refineries 2/		Ingot makers 3/		Brass and wire-rod mills		Foundries, etc. 3/		Total 4/
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
1998:									
November	5,170	19,200	2,900	7,920	63,400	2,790	881	3,400	106,000
December	5,580	21,900	2,900	7,920	61,800	1,370	881	3,400	106,000
January - November	80,700 r/	241,000 r/	31,900 r/	87,100 r/	719,000 r/	29,000	9,690 r/	37,400 r/	1,240,000 r/
Year	86,300	263,000	34,800	95,000	781,000	30,400	10,600	40,800	1,340,000
1999:									
January	4,370	16,400	2,900	7,920	64,600	2,740	881	3,400	103,000
February	5,560	17,000	2,900	7,920	66,400	3,030	881	3,400	107,000
March	6,210	18,600	2,900	7,920	72,800	3,070	881	3,400	116,000
April	4,910	13,800	2,900	7,920	67,200	2,540	881	3,400	104,000
May	4,710	12,500	2,900	7,920	66,600	2,020	881	3,400	101,000
June	4,850	13,700	2,900	7,920	67,400	2,410	881	3,400	103,000
July	6,300	16,000	2,900	7,920	64,300	1,630	881	3,400	103,000
August	5,140	14,100	2,900	7,920	67,700	1,470	881	3,400	103,000
September	6,050	15,200	2,900	7,920	66,700 r/	1,480	881	3,400	105,000
October	5,400	15,600	2,900	7,920	69,000 r/	1,380	881	3,400	107,000 r/
November	3,590	14,100	2,900	7,920	67,900	1,410	881	3,400	102,000
January - November	57,100	167,000	31,900	87,100	741,000	23,200	9,690	37,400	1,150,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Electrolytically refined and fire-refined scrap based on source of material at smelter level.

3/ Monthly data and 1999 cumulative data estimated based on 1998 annual data.

4/ Does not include an estimate, based on reported 1998 data, of 3,540 tons per month from new scrap and 2,840 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6  
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD MILL SEMIFABRICATES 1/

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire rod mills	Brass mills	Wire rod mills	Brass mills	Wire rod mills
1998:						
November	132,000	181,000	133,000	172,000	59,300	39,800
December	128,000	144,000	125,000	153,000	62,500	30,900
January - November	1,460,000 r/	1,950,000	1,470,000 r/	1,950,000	XX	XX
Year	1,590,000	2,100,000	1,590,000	2,100,000	XX	XX
1999:						
January	138,000	180,000	141,000	174,000	59,500	36,800
February	134,000	178,000	135,000	175,000	58,000	40,100
March	139,000	190,000	146,000	193,000	50,500	37,100
April	144,000	182,000	142,000	184,000	53,300	35,500
May	138,000	181,000	138,000	180,000	53,300	36,400
June	138,000	184,000	140,000	183,000	51,000	37,400
July	122,000	169,000	126,000	169,000 r/	47,600	37,600 r/
August	139,000	187,000	136,000 r/	184,000 r/	51,300 r/	40,900 r/
September	143,000	182,000	139,000	181,000 r/	48,200 r/	42,500 r/
October	140,000	181,000 r/	139,000	179,000 r/	48,700 r/	45,000 r/
November	138,000	174,000	138,000	178,000	49,000	41,200
January - November	1,510,000	1,990,000	1,520,000	1,980,000	XX	XX

r/ Revised. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 7  
CONSUMPTION OF REFINED COPPER 1/

(Metric tons)

Period and item	Wire rod mills	Brass mills 2/	Other plants 3/	Total
1998:				
November	190,000	52,900	4,730	247,000
December	149,000	51,600	4,730	205,000
January - November	2,020,000	608,000 r/	52,000 r/	2,680,000 r/
Year	2,170,000	659,000	56,700	2,890,000
1999:				
January	186,000	58,400	4,730	249,000
February	185,000	50,900	4,730	240,000
March	209,000	55,500	4,730	270,000
April	184,000	53,800	4,730	243,000
May	185,000 r/	60,100	4,730	250,000 r/
June	189,000	59,900	4,730	254,000
July	174,000	58,500	4,730	238,000
August	201,000 r/	58,400	4,730	264,000 r/
September	187,000 r/	60,700	4,730	252,000 r/
October	192,000 r/	62,300 r/	4,730	259,000 r/
November:				
Cathodes	181,000	41,600	940	223,000
Wire bars	--	--	W	W
Ingots and ingot bars	--	1,520	1,600	3,130
Cakes and slabs	--	9,210	W	9,210
Billets and other	1,720	8,480	2,180	12,400
Total	182,000	60,800	4,730	248,000
January - November	2,080,000	639,000	52,000	2,770,000

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Billets and other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ In 1998, brass mills consumed 1,500 tons of refined lead, 600 tons of pig tin, 2,400 tons of refined nickel, and 53,200 tons of slab zinc.

3/ Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 1998 annual data.

TABLE 8  
U.S. APPARENT CONSUMPTION OF COPPER 1/

(Metric tons)

Period	Refined copper production	Copper in old scrap 2/	Refined general imports 3/	Refined exports 3/	Stock change during period	Apparent consumption
1998:						
November	182,000	36,200	70,300	3,610	37,100	248,000
December	190,000	37,400	54,700	6,200	64,600	211,000
January - October	1,770,000 r/	389,000 r/	600,000	76,400 r/	117,000 r/	2,560,000 r/
Year	2,140,000	463,000	725,000	86,200	218,000	3,020,000
1999:						
January	164,000	33,300	64,700	2,350	26,000	234,000
February	156,000	34,200	58,500	1,120	24,700	222,000
March	195,000	35,800	86,000	1,840	31,300	284,000
April	179,000	30,500	66,300	1,340	28,000	247,000
May	169,000	28,700	57,100	1,630	3,080	250,000
June	157,000	30,300	60,600	4,240	(24,300)	267,000
July	141,000	31,800	61,000	1,560	(14,100) r/	246,000 r/
August	142,000	29,700	79,600	1,500	(13,700) r/	263,000
September	152,000	30,900	85,200	1,180	(30,000) r/	297,000
October	151,000	31,200	106,000	1,400	7,660 r/	279,000
November	142,000	29,600	NA	NA	(41,800)	NA
January - October	1,610,000	316,000	725,000	18,200	38,600	2,590,000

r/ Revised. NA Not available.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes reported monthly production of copper from old scrap of copper-base and estimates for annual reporters and of non-copper-base materials based on 1998 data.

3/ Source: Bureau of the Census.

TABLE 9  
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers 2/		Brass and wire-rod mills 3/		Foundries, etc. 2/		Total scrap used
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
1998:									
November	6,350	29,800	3,850	11,200	80,400	2,870	1,060	3,780	139,000
December	5,980	27,500	3,850	11,200	78,500	1,440	1,060	3,780	133,000
January - November r/	94,500	335,000	42,400	124,000	909,000	29,900	11,600	41,600	1,590,000
Year	100,000	363,000	46,200	135,000	987,000	31,400	12,700	45,400	1,720,000
1999:									
January	5,440	43,300	3,850	11,200	81,200	2,800	1,060	3,780	153,000
February	6,570	42,800	3,850	11,200	83,900	3,130	1,060	3,780	156,000
March	6,700	39,600	3,850	11,200	92,500	3,170	1,060	3,780	162,000
April	5,430	38,300	3,850	11,200	85,700	2,620	1,060	3,780	152,000
May	5,390	36,400	3,850	11,200	84,300	2,090	1,060	3,780	148,000
June	5,470	36,100	3,850	11,200	85,500	2,500	1,060	3,780	150,000
July	6,470	37,300	3,850	11,200	80,500	1,690	1,060	3,780	146,000
August	5,200	35,700	3,850	11,200	84,400 r/	1,530	1,060	3,780	147,000 r/
September	6,130	36,800	3,850	11,200	84,300 r/	1,550	1,060	3,780	149,000
October	5,980	37,200	3,850	11,200	87,600 r/	1,450	1,060	3,780	152,000 r/
November	3,650	35,600	3,850	11,200	86,100	1,470	1,060	3,780	147,000
January - November	62,400	419,000	42,400	124,000	936,000	24,000	11,600	41,600	1,660,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Monthly data and 1999 cumulative data estimated from 1998 annual data.

3/ Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10  
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/ 2/

(Metric tons, gross weight)

Scrap type and processor	1998		1999			
	January - November	Year	September	October	November	January - November
No. 1 wire and heavy:						
Smelters and refiners	131,000 r/	139,000	8,300	8,030	4,240	78,400
Brass and wire-rod mills	380,000 r/	411,000	36,800	37,200	36,100	400,000
No. 2 mixed heavy and light:						
Smelters and refiners	187,000 r/	205,000	10,500	11,000	10,900	134,000
Brass and wire-rod mills	29,400	32,600	1,570	1,490	1,380	19,900
Total unalloyed scrap:						
Smelters and refiners	318,000 r/	343,000	18,800	19,100	15,100	212,000
Brass and wire-rod mills	410,000 r/	443,000	38,300	38,700	37,500	420,000
Red brass: 3/						
All plants	59,300 r/	64,500	5,280	5,630	5,280	59,400
Leaded yellow brass:						
All plants	385,000 r/	419,000	35,100	36,100	35,200	388,000
Yellow and low brass:						
All plants	56,400 r/	61,500	5,910	6,040	6,430	67,500
Cartridge cases and brass:						
Smelters and refiners	W	W	W	W	W	W
Brass mills	75,600 r/	81,700	5,880	7,050	6,650	72,500
Auto radiators:						
Smelters and refiners	51,800 r/	56,900	5,570	5,570	5,570	61,600
Bronzes:						
Smelters and refiners	12,100 r/	13,200	1,100	1,100	1,100	12,100
Brass mills	12,600	13,600	575	762	694	8,750
Nickel-copper alloys:						
All plants	15,700 r/	16,900	1,370	2,560	2,570	20,400
Low grade & residues:						
Smelters and refiners	115,000 r/	123,000	23,700	23,700	23,700	263,000
Other alloy scrap: 4/						
Smelters and refiners 5/	19,800 r/	21,300	1,680	1,680	1,680	20,200
Brass mills	4,210	4,620	399	425	425	4,480
Total alloyed scrap:						
Smelters and refiners	278,000 r/	301,000	39,200	39,200	39,200	435,000
Brass mills	529,000 r/	575,000	47,400	51,400	50,100	543,000
Total scrap:						
Smelters and refiners	596,000 r/	644,000	58,000	58,300	54,300	648,000
Brass and wire-rod mills	939,000	1,020,000	85,700	90,200	87,600	963,000

r/ Revised. W Withheld to avoid disclosing company proprietary data.

1/ Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 4,840 tons of scrap per month in 1998; monthly data include estimates of about 17,600 tons of scrap per month consumed by ingot makers and several smelters that report on an annual basis.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

4/ Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

5/ Includes items indicated by symbol W.

TABLE 11  
COPPER STOCKS AT END OF PERIOD 1/

(Metric tons)

Period	Crude copper 2/	Refined copper						Total refined
		Refineries 3/	Wire rod mills 3/	Brass mills 3/	Other 4/	Comex 5/	LME 6/	
1998:								
November	182,000	34,300	28,200	17,500	3,870	67,700	316,000	468,000
December	160,000	44,200	37,300	20,800	3,870	85,200	341,000	532,000
1999:								
January	143,000	45,600	43,100	20,600	3,870	92,400	353,000	558,000
February	148,000	44,100	32,400	22,000	3,870	104,000	377,000	583,000
March	132,000	48,200	29,700	21,000	3,870	112,000	400,000	614,000
April	147,000	49,200	27,200	21,200	3,870	120,000	420,000	642,000
May	132,000	43,200	34,700	20,600	3,870	119,000	424,000	645,000
June	134,000	26,600	32,500	18,600	3,870	121,000	418,000	621,000
July	137,000	14,100	38,100 r/	20,500	3,870	109,000	421,000	607,000
August	154,000	18,000	29,900 r/	18,500	3,870	98,700	424,000	593,000
September	149,000	14,400	34,300 r/	16,600	3,870	88,500	406,000	563,000
October	142,000 r/	13,600 r/	37,800 r/	18,400	3,870	82,400	415,000	571,000 r/
November	140,000	11,200	34,100	21,100	3,870	82,400	410,000	563,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Copper content of blister and other materials in transit and in process of refining.

3/ Stocks of refined copper as reported; no estimates are made for non-respondents.

4/ Monthly estimates based on reported and 1998 annual data, comprising stocks at secondary smelters, chemical plants, foundries, and miscellaneous manufacturers.

5/ Commodity Exchange Inc., New York.

6/ London Metal Exchange Ltd., U.S. warehouses.

TABLE 12  
AVERAGE PRICE OF COPPER IN THE UNITED STATES AND  
ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price cathode 1/	Comex first position 2/	LME cash price Grade A
1998:			
November	75.210	71.513	71.377
December	69.915	66.255	66.825
January - December	78.641	75.077	75.008
1999:			
January	68.726	65.066	64.902
February	67.594	63.934	63.974
March	66.164	62.504	62.505
April	70.662	67.002	66.475
May	72.720	69.060	68.528
June	69.037	65.227	64.506
July	79.677	76.017	74.371
August	79.692	75.882	74.715
September	84.748	80.888	79.379
October	83.364	79.300	78.186
November	83.162	79.098	78.343
January - November	75.050	71.271	70.535

1/ Listed as "U.S. producer cathode."

2/ Listed as "Comex high grade first position."

Sources: Platt's Metals Week and American Metal Market.



TABLE 13  
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 scrap	Red brass turnings and borings
1998:				
November	70.37	57.14	46.00	40.00
December	65.40	52.70	41.91	36.73
January - December	73.55	60.19	49.46	40.33
1999:				
January	64.11	51.17	39.32	36.00
February	63.13	51.07	39.00	36.84
March	62.04	50.75	39.00	38.00
April	65.94	54.58	39.00	38.00
May	68.59	56.68	42.80	38.95
June	64.69	52.57	41.55	36.82
July	74.99	62.69	42.71	36.57
August	74.86	61.67	44.00	37.00
September	79.25	63.51	45.00	37.67
October	77.51	61.30	47.00	39.00
November	76.76	61.46	47.20	39.00
January - November	70.17	57.04	42.42	37.62

Source: American Metal Market.

TABLE 14  
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	1999			1999			1999			1999		
	1998	October	January - October	1998	October	January - October	1998	October	January - October	1998	October	January - October
Argentina	9,930	--	--	--	--	--	--	--	--	--	--	--
Brazil	--	--	--	--	--	--	--	--	--	9,000	--	11,100
Canada	1,690	--	3	140	--	4	82,100	7,280	66,700	265,000	23,000	216,000
Chile	147,000	--	110,000	--	--	--	24,100	7,280	65,700	78,700	17,000	125,000
Denmark	--	--	--	54	--	--	--	--	--	--	--	--
Indonesia	29,400	--	31,900	--	--	--	--	--	--	--	--	--
Japan	--	--	--	240	--	49	(2/)	--	(2/)	8,680	716	4,220
Kazakhstan	--	--	--	--	--	--	--	--	--	--	2,740	13,800
Malaysia	--	--	--	14	16	76	--	--	--	--	--	--
Mexico	4,980	--	500	998	40	829	29,400	597	18,500	178,000	5,470	93,700
Namibia	--	--	--	--	--	--	3,360	--	--	--	--	--
Netherlands	--	--	--	551	--	369	--	--	--	4,570	--	1,760
Papua New Guinea	5,900	--	--	--	--	--	--	--	--	--	--	--
Peru	18,200	--	--	--	--	--	6,870	--	4,380	128,000	22,500	173,000
Russia	--	--	--	--	--	--	--	--	--	9,170	7,010	41,800
South Africa	--	--	--	--	--	--	2,830	--	--	--	--	1,130
Spain	--	--	--	--	--	--	1,440	247	568	1,300	--	11,000
Taiwan	--	--	--	213	8	144	--	--	16	42	--	62
Other	12	--	12	25	--	9	36	--	96	1,210	2,580	8,570
Total	217,000	--	143,000	2,230	64	1,480	150,000	15,400	156,000	683,000	81,000	701,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 15  
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	1999			1999			1999			1999		
	1998	October	January - October	1998	October	January - October	1998	October	January - October	1998	October	January - October
Australia	45	--	--	18	--	2	58	10	269	29	--	--
Belgium	39	--	17	323	4	4	961	--	87	17	--	404
Canada	33,600	2,690	23,000	12,800	1,210	23,700	16,400	1,330	17,800	16,100	1,160	12,100
China	--	18,000	18,100	--	2	10	63	--	135	360	53	253
France	--	--	1	30	--	--	554	--	160	37	--	29
Germany	1,470	7	74	6,660	98	261	92	16	136	294	--	272
Hong Kong	15	--	33	--	--	--	3,350	447	2,980	1,310	6	206
Italy	34	--	--	--	--	--	354	36	419	69	--	15
Japan	1,050	21	21	34	245	649	695	164	1,140	17,000	--	78
Korea, Republic of	46	--	14	15	--	43	130	47	470	2,870	--	25
Mexico	97	--	8,480	1,060	66	103	1,330	5	89	11,200	110	1,250
Netherlands	3	--	70	4	--	10	2	--	2	10,100	--	18
Peru	--	222	1,040	--	--	--	--	--	5	--	--	--
Singapore	--	--	--	6	--	--	726	48	485	687	--	--
Sweden	--	--	--	945	--	--	--	--	--	3	--	--
Taiwan	(2/)	--	--	--	--	14	1,800	61	1,470	19,100	2	3,150
Thailand	18	--	--	--	--	6	46	10	41	5,830	--	--
Other	152	15	173	97 r/	11	87	541	58	628	1,260 r/	76	364
Total	36,500	21,000	51,000	22,000	1,640	24,900	27,100	2,230	26,300	86,200	1,400	18,200

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 16  
U.S. COPPER SCRAP TRADE 1/

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	1999			1999			1999			1999		
	1998	October	January - October	1998	October	January - October	1998	October	January - October	1998	October	January - October
Belgium	80	--	--	476	2	215	2,730	52	1,110	434	20	274
Canada	30,900	593	5,290	55,800	4,400	39,500	39,600	3,520	25,000	68,200	2,140	30,600
Chile	3,310	276	5,480	1,440	165	1,150	--	--	--	3	--	--
China	--	--	--	101	171	1,160	28,600	5,130	38,800	20,700	3,340	28,800
Colombia	836	69	586	2,560	308	2,420	--	--	--	4	--	--
Costa Rica	800	71	559	778	60	689	--	--	--	--	--	--
Dominican Republic	942	93	1,050	1,250	141	837	--	--	--	--	--	20
Germany	6	--	--	54	1	42	7,800	169	968	5,920	148	1,640
Guatemala	519	24	61	969	129	1,420	--	--	--	--	--	--
Hong Kong	--	--	--	113	--	11	14,400	731	7,150	23,600	216	3,020
India	--	--	--	--	--	--	3,460	115	2,280	24,900	2,170	21,300
Jamaica	491	84	323	571	19	452	--	--	--	--	--	--
Japan	19	14	248	126	--	49	10,200	1,270	7,700	10,400	558	8,590
Korea, Republic of	15	--	--	150	20	212	2,720	604	6,310	11,600	2,200	29,400
Malaysia	--	--	--	1,440	85	747	286	--	152	234	--	418
Mexico	12,900	1,450	13,300	35,400	2,580	24,800	1,230	374	823	10,200	2,630	15,500
Singapore	--	--	2	143	(2/)	77	266	126	1,690	173	--	84
Spain	12	--	16	477	146	1,130	60	--	2,760	1,860	--	1,210
Taiwan	109	--	16	720	38	433	2,110	277	3,330	6,210	545	6,500
United Kingdom	--	--	120	1,090	235	1,840	176	--	555	3,890	55	1,640
Venezuela	462	144	542	1,500	193	1,550	--	--	--	37	--	20
Other	2,990 r/	192	1,270	6,170 r/	570	5,070	495	41	1,160	5,000	428	4,970
Total	54,400	3,010	28,900	111,000	9,260	83,800	114,000	12,400	99,800	193,000	14,400	154,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.